Update on progress of *lites.asia* collaborative projects

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Communications materials library

- Objective
  - To provide a library of ‘communications materials’ related to lighting for domestic, commercial and industrial consumers to enable exchange of experience between countries and potential harmonisation of some items (e.g. equivalence)
- Developed by *lites.asia* and reviewed by members
- Now live of the *lites.asia* website at:

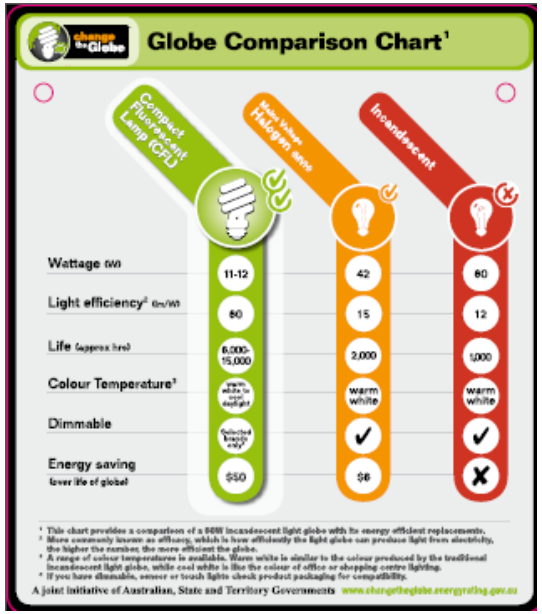
  www.lites.asia/library

Next step

Send your material to us!

info@lites.asia

For example… Consumer education material



For example… packaging images

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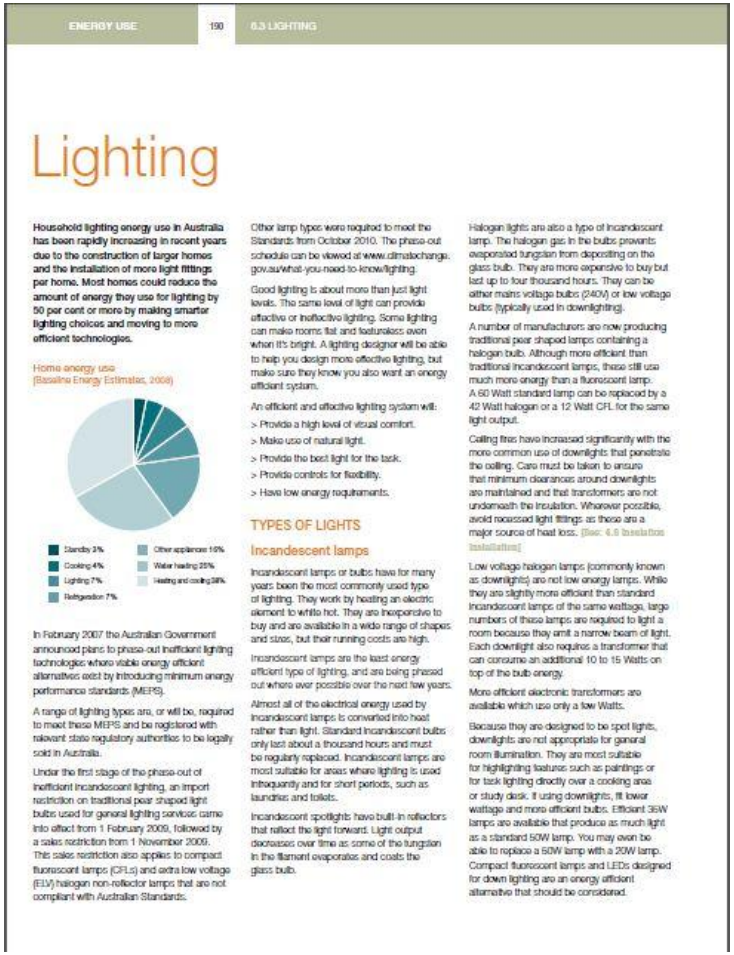
For example… training material

The Basics of Efficient Lighting

A Reference Manual for Training in Efficient Lighting Principles
First Edition, December 2009

National Framework for Energy Efficiency



ENERGY USE 190 6.3 LIGHTING

Lighting

Household lighting energy use in Australia has been rapidly increasing in recent years due to the construction of larger homes and the installation of more light fittings per home. Most homes could reduce the amount of energy they use for lighting by 50 per cent or more by making smarter lighting choices and moving to more efficient technologies.

Home energy use
(Baseline Energy Estimates, 2008)

In February 2007 the Australian Government announced plans to phase-out inefficient lighting technologies where viable energy efficient alternatives exist by introducing minimum energy performance standards (MEPS).

A range of lighting types are, or will be, required to meet these MEPS and be registered with relevant state regulatory authorities to be legally sold in Australia.

Under the first stage of the phase-out of inefficient incandescent lighting, an import restriction on traditional pear shaped light bulbs used for general lighting services came into effect from 1 February 2009, followed by a sales restriction from 1 November 2009. This sales restriction also applies to compact fluorescent lamps (CFLs) and extra low voltage (ELV) halogen non-reflector lamps that are not compliant with Australian Standards.

Other lamp types were required to meet the Standards from October 2010. The phase-out schedule can be viewed at www.climatechange.gov.au/what-you-need-to-know/lighting.

Good lighting is about more than just light levels. The same level of light can provide effective or ineffective lighting. Some lighting can make rooms flat and featureless even when it's bright. A lighting designer will be able to help you design more effective lighting, but make sure they know you also want an energy efficient system.

An efficient and effective lighting system will:

> Provide a high level of visual comfort.
> Make use of natural light.
> Provide the best light for the task.
> Provide controls for flexibility.
> Have low energy requirements.

TYPES OF LIGHTS

Incandescent lamps

Incandescent lamps or bulbs have for many years been the most commonly used type of lighting. They work by heating an electric element to white hot. They are inexpensive to buy and are available in a wide range of shapes and sizes, but their running costs are high.

Incandescent lamps are the least energy efficient type of lighting, and are being phased out where ever possible over the next few years.

Almost all of the electrical energy used by incandescent lamps is converted into heat rather than light. Standard incandescent bulbs only last about a thousand hours and must be regularly replaced. Incandescent lamps are most suitable for areas where lighting is used infrequently and for short periods, such as laundries and toilets.

Incandescent spotlights have built-in reflectors that reflect the light forward. Light output decreases over time as some of the tungsten in the filament evaporates and coats the glass bulb.

Halogen lights are also a type of incandescent lamp. The halogen gas in the bulbs prevents evaporated tungsten from depositing on the glass bulb. They are more expensive to buy but last up to four thousand hours. They can be either mains voltage bulbs (240V) or low voltage bulbs (typically used in downlighting).

A number of manufacturers are now producing traditional pear shaped lamps containing a halogen bulb. Although more efficient than traditional incandescent lamps, these still use much more energy than a fluorescent lamp. A 60 Watt standard lamp can be replaced by a 42 Watt halogen or a 12 Watt CFL for the same light output.

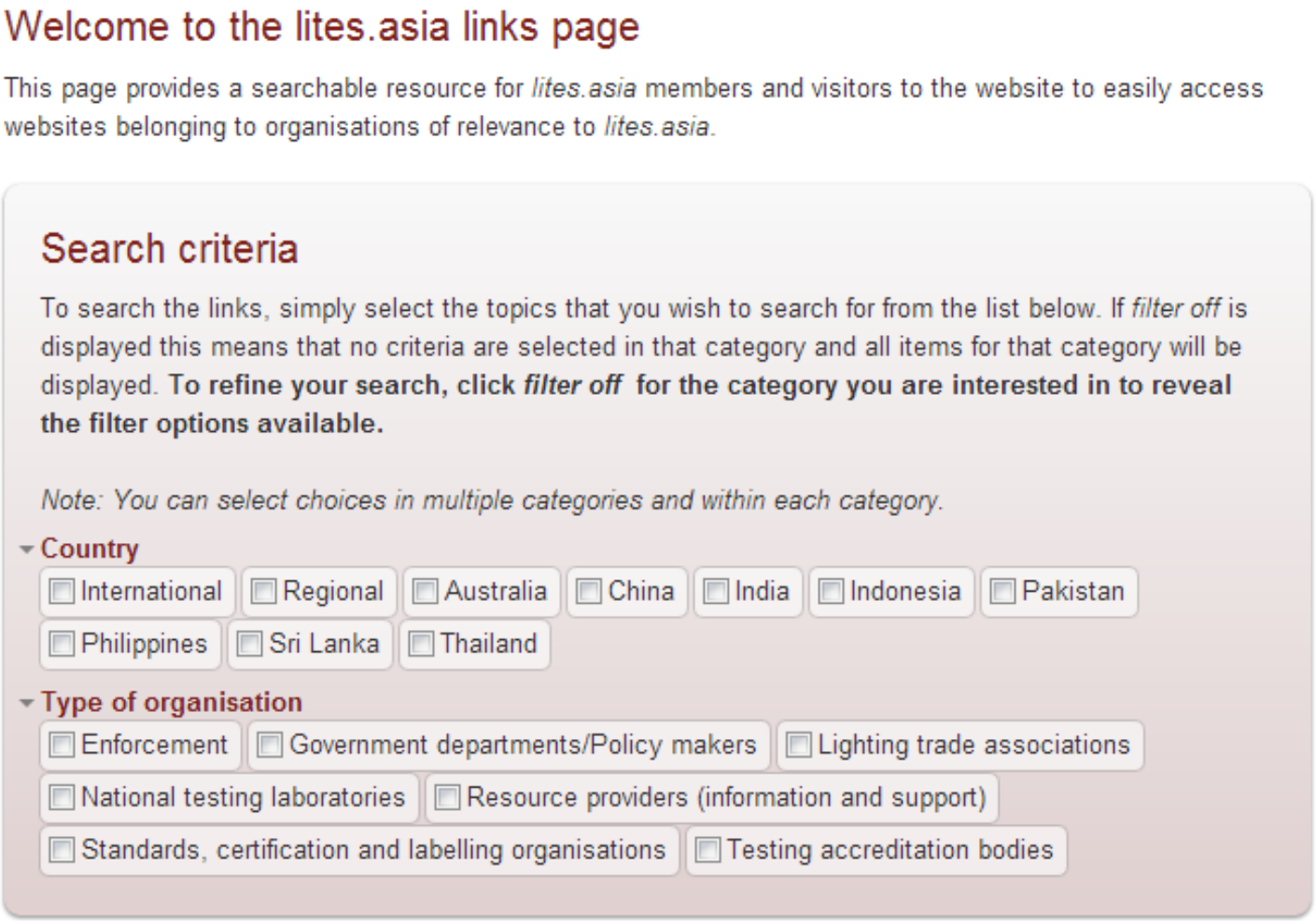
Ceiling fires have increased significantly with the more common use of downlights that penetrate the ceiling. Care must be taken to ensure that minimum clearances around downlights are maintained and that transformers are not underneath the insulation. Wherever possible, avoid recessed light fittings as these are a major source of heat loss. [See: 6.6 Insulation installation]

Low voltage halogen lamps (commonly known as downlights) are not low energy lamps. While they are slightly more efficient than standard incandescent lamps of the same wattage, large numbers of these lamps are required to light a room because they emit a narrow beam of light. Each downlight also requires a transformer that can consume an additional 10 to 15 Watts on top of the bulb energy.

More efficient electronic transformers are available which use only a few Watts.

Because they are designed to be spot lights, downlights are not appropriate for general room illumination. They are most suitable for highlighting features such as paintings or for task lighting directly over a cooking area or study desk. If using downlights, fit lower wattage and more efficient bulbs. Efficient 35W lamps are available that produce as much light as a standard 50W lamp. You may even be able to replace a 50W lamp with a 20W lamp. Compact fluorescent lamps and LEDs designed for down lighting are an energy efficient alternative that should be considered.

Interactive *lites.asia* links page



Welcome to the lites.asia links page

This page provides a searchable resource for *lites.asia* members and visitors to the website to easily access websites belonging to organisations of relevance to *lites.asia*.

Search criteria

To search the links, simply select the topics that you wish to search for from the list below. If *filter off* is displayed this means that no criteria are selected in that category and all items for that category will be displayed. **To refine your search, click *filter off* for the category you are interested in to reveal the filter options available.**

Note: You can select choices in multiple categories and within each category.

Country

- ☐ International
- ☐ Regional
- ☐ Australia
- ☐ China
- ☐ India
- ☐ Indonesia
- ☐ Pakistan
- ☐ Philippines
- ☐ Sri Lanka
- ☐ Thailand

Type of organisation

- ☐ Enforcement
- ☐ Government departments/Policy makers
- ☐ Lighting trade associations
- ☐ National testing laboratories
- ☐ Resource providers (information and support)
- ☐ Standards, certification and labelling organisations
- ☐ Testing accreditation bodies

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Next step

Should we develop this idea further?

What information should we include?

Provide details of relevant organisations in your country

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Labelling Display Survey: *Objectives*

- Improved national understanding of levels of labelling compliance
- Identification of the key areas of similarity or variation in labelling non-compliance in the region, including by type of retail outlet, product category or brand
- Measurement of the improvement in compliance rates through increased market surveillance and communication with suppliers
- The reporting of the project may also help other countries considering the uptake of labelling schemes

Labelling display survey: *Methodology*

- National surveys conducted according to guidelines, with the results analysed and fed back to the responsible agency in each country
- The responsible agency will take appropriate actions to inform, warn or sanction those suppliers and/or outlets found to be non-compliant
- A second survey conducted to assess the impact of the actions taken on compliance rates, with the results analysed and fed back to the responsible agency in each country

Labelling display survey: *Progress*

- Contracting delays resulted in a slow start
- However, the guidelines, methodology, survey material and results spreadsheet have been developed
- Initial communication undertaken with participants
- Project will now span a longer time period – until June 2014
- Therefore still time for other countries to get involved!

Labelling display survey: *Participants*

- Australia
- Pakistan
- Philippines
- Sri Lanka
- Thailand
- Vietnam
- *India*
- *Indonesia*

Labelling display survey: *Planned activities*

- Pakistan
  - CFLs, linear fluorescent tubes and ballasts
  - Five retail outlets/40 lamps
- Philippines
  - CFLs
  - Twelve retail outlets/7,500 lamps
- Sri Lanka
  - CFLs
  - 25 retail outlets/200 lamps
- Thailand
  - CFLs
  - 30 retail outlets/1,000 lamps

Labelling display survey: *Planned activities*

- Australia
  - Large scale compliance survey
  - All lighting products subject to registration
  - Checking packaging requirements (no label for lighting)
- Vietnam
  - Introducing mandatory labelling in June 2013
  - Workshop this week to decide how to undertake a labelling survey
  - Most likely to cover a variety of products but include CFLs and linear fluorescent tubes

Regional tropical performance criteria

Objective

- To provide a set of test and performance criteria for adoption by international, national and regional organisations where LEDS are likely to be operating in tropical conditions for use in conjunction with, or as an extension to, existing internationally recognised test methods and standards.
- They add additional test and performance measures that may assist in managing LED quality in the typically more extreme temperature, voltage and insect infiltration conditions experienced in tropical areas

Regional tropical performance criteria

- Criteria have been reviewed by lighting experts and *lites.asia* members
- Final version now available on the *lites.asia* website at:

  www.lites.asia/downloads/tropical-performance-criteria

Training for testing laboratory staff

Objective

- To increase the capacity of a number of lighting laboratories around Asia through delivery of a series of training programmes, staff exchanges and/or round-robins

Thank you!

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- Documents for discussion/outputs
- Communications Materials Library
- Join lites.asia

Home / Communications Materials Library

Communications Materials Library

Welcome to the *lites.asia* Communications Materials Library - a resource designed to provide a central point allowing *lites.asia* members to share 'communications materials' related to lighting for domestic, commercial and industrial consumers. Its overall objective is to enable exchange of experience between countries and potential harmonisation of some items.

The content of the library is determined by the material submitted by members. However, it is intended to include material on existing training packages, consumer information, packaging, equivalence requirements, etc.

The materials in the library include links to websites ( ) and files of various types. For example:

- Word (DOC)
- PDFs (PDF)
- Graphics files (JPG / PNG)

Note: *The responsibility for the content of third party documents and websites rests with their owners.*

Searching the library

As a default, all documents and links within the library are displayed. To search the library, simply click on the category you are interested in to reveal the filter options available. *You can select choices in multiple categories and within each category.*

Country of origination

☐ Australia ☐ New Zealand ☐ United States

Target audience filter off

Type of information filter off

14 items found *Publication date*

TopTen LED Lighting Jan 10, 2013

TopTen USA ranking of energy efficient lighting products

Consumer information, Consumers, Government/Regulators/Policy makers, Technical information, United States

ENERGY STAR Product Specification for Lamps: Elevated Temperature Life Testing Draft Test Method Jan 01, 2013

Test method to be used for used for determining product compliance with the Elevated Temperature Life Test (ETLT) requirements in the ENERGY STAR Eligibility Criteria for Lamps

Government/Regulators/Policy makers, Manufacturers, Standard, Technical information, Testing laboratories, United States

Voluntary California Quality Light-Emitting Diode (LED) Lamp Specification Dec 01, 2012

This report outlines a voluntary quality specification developed by the California Energy Commission

Government/Regulators/Policy makers, Lighting professionals, Manufacturers, Standard, Technical information, Testing laboratories, United States